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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,376	07/17/2003	Tomckazu Hayashi	10517/173	9710
23838	7590	08/06/2007	EXAMINER	
KENYON & KENYON LLP			YUAN, DAH WEI D	
1500 K STREET N.W.			ART UNIT	
SUITE 700			PAPER NUMBER	
WASHINGTON, DC 20005			1745	
			MAIL DATE	DELIVERY MODE
			08/06/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/620,376

Applicant(s)

HAYASHI ET AL.

Examiner

Dah-Wei D. Yuan

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-16 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>06122007</u> . | 6) <input type="checkbox"/> Other: _____  |

**SEAL STRUCTURE OF FUEL CELL UNIT  
AND MANUFACTURING METHOD OF THE SAME**

Examiner: Yuan

S.N. 10/620,376

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August 1, 2007

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 12, 2007 has been entered. Claim 1 was amended. Claim 5 was canceled.

2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action issued on August 16, 2006.

***Claim Rejections - 35 USC § 102***

3. Claims 1-4,6-12,14 are rejected under 35 U.S.C.102(e) as being anticipated by Inoue et al. (US 2001/0044042 A1).

With respect to claims 1-4,8,10,12,14, Inoue et al. teach a PEM fuel cell stack comprising a plurality of fuel cells, a gel sealant, and retaining portions (28,30) which are formed on the separators between which the sealant (S) is interposed. A spacing portion, which is defined as the extension of the separator (14), is kept at a constant distance with the opposing spacing portion of the separator (16). See Figures 2,6; Paragraph 18.

With respect to claims 6,7, Inoue et al. teach the spacing portion can be part of the separators or be separate from the separators. See Figure 2.

With respect to claim 9, the two separators are electrically insulated from each other by the sealant (S) at the spacing portions. See Figure 2.

With respect to claim 11, the retaining portion is formed concave toward the sealant. See Figure 2.

4. Claims 1-4,6,8-11,14 are rejected under 35 U.S.C.102(e) as being anticipated by Suenaga et al. (US 2002/0051902 A1).

With respect to claims 1-4,8-10,14, Suenaga et al. teach a PEM fuel cell stack comprising a plurality of fuel cells, a sealant selected from an elastomer type or a thermoplastic elastomer type, and retaining portions (31,41) which are formed on the upper and lower dies (30,40) between which the sealant (10A) is interposed and adhered to the electrolyte membrane (23). A spacing portion, which is defined as the extension of the upper die (30), is kept at a constant distance with the opposing spacing portion of the lower die (40). See Figure 1E; Paragraphs 19,37.

With respect to claim 6, Suenaga et al. teach the spacing portion can be part of the upper and lower dies. See Figure 1E.

With respect to claim 11, the retaining portion is formed concave toward the sealant. See Figure 1E.

5. Claims 1-4,6,8-11,13,14 are rejected under 35 U.S.C.102(e) as being anticipated by Inoue et al. (US 6,872,485).

With respect to claims 1-4,8-10,14 Inoue et al. teach a PEM fuel cell stack comprising a plurality of fuel cells, a sealant selected from the group consisting of a rubber, a resin or a composite material of a rubber and a resin, and a retaining portion which is formed on a separator (30) between which the sealants (10) is interposed. A spacing portion, which is defined as the extension of the separator (6), is kept at a constant distance with the opposing spacing portion of the separator (6). See Figures 6,7,10, Example.

With respect to claim 6, Inoue et al. teach the spacing portion is part of the separator (30). See Figures 6,7,10.

With respect to claim 11, the retaining portions are formed either concave or convex toward the sealant. See Figure 10.

With respect to claim 13, the two components are a separator and an electrolyte membrane. See Figure 10.

### ***Response to Arguments***

6. Applicant's arguments filed on June 12, 2007 have been fully considered but they are not persuasive.

*Applicant's principal arguments are*

*Comparing the present application with the teachings of Inoue '042, one difference is that the sealant of the present application does not harden.*

In response to Applicant's arguments, please consider the following comments.

It is noted that the alleged feature of the sealant does not recite in the independent claim

1.

### *Conclusion*

7. This is a continuation of applicant's earlier Application No. 10/620,376. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dah-Wei D. Yuan whose telephone number is (571) 272-1295. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dah-Wei D. Yuan  
August 1, 2007



DAH-WEI YUAN  
PRIMARY EXAMINER